

**BroadwaveUSA™**

Creating Cable Competition with Northpoint Technology

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November 22, 2000

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARYMagalie Roman Salas, Secretary  
Federal Communications Commission  
Counter TW-A325  
The Portals, 445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554Re: *Ex Parte* Submission of Northpoint Technology, Ltd.  
ET Docket No. 98-206, RM-9147, RM-9245

Dear Ms. Salas:

Northpoint Technology, Ltd. hereby responds to the November 16, 2000 DirecTV, Inc. and EchoStar Satellite Corporation ("DBS") filing addressing certain Northpoint/DBS sharing issues. This filing corrects a number of inaccuracies contained in the DBS filing.

First, DBS claims that the ITU objectives have been misinterpreted in these proceedings when Northpoint argues that terrestrial services would not impact DBS beyond the level indicated in the Radio Regulations.<sup>1</sup> The DBS allegation is erroneous. What the ITU Radio Regulations actually state is that terrestrial services shall not cause harmful interference to satellite systems operating in accordance with the BSS plan.<sup>2</sup> Northpoint will comply with this requirement. There are no other ITU radio regulations that promulgate either criteria or methodology for sharing between co-frequency and co-located DBS and terrestrial transmitters. Thus, the FCC is free to develop whatever regulations it deems fit to facilitate sharing between terrestrial services and DBS. Indeed, this is the purpose of the current Rulemaking.

Second, DBS asserts that it cannot accept any increase beyond the 10% unavailability standard it agreed to for NGSO FSS interference. Northpoint believes that applying a standard that is measured in a percentage of increased unavailability is contrary to the public interest for a terrestrial service for the very reasons pointed out by DBS. As set forth in Northpoint's filing of October 20, a percentage of unavailability

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<sup>1</sup> DBS letter page 2.

<sup>2</sup> See Amendment of Part 2 of the Commission's Rules to Make Non-Substantive Revisions to the Table of Frequency Allocations, 15 FCC Rcd 3459, 1999 FCC Lexis 6428, Appendix A, International Footnotes in the United States Table, 15 FCC Rcd at 3479 ("S5.490 In Region 2, in the band 12.2 – 12.7 GHz, existing and future terrestrial radiocommunication services shall not cause harmful interference to the space services operating in conformity with the broadcasting satellite Plan for Region 2 contained in Appendix S30.").

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standard would result in widely different service levels depending on the part of the country in which a customer lives.<sup>3</sup>

Moreover, although DBS considers a C/I of 27.2 dB to be "acceptable," it has never claimed that a C/I of 27.1 dB would be "harmful." Terrestrial services are required to avoid harmful interference.

Northpoint is pleased that DBS now agrees that the *consumer perception of impairment* is, and should be, the standard for determining if the consumer has been harmed. DBS uses the ITU five-grade picture quality impairment scale contained in ITU-R BT.500-7 to determine whether or not a picture is acceptable.<sup>4</sup> Furthermore, DBS considers the picture acceptable if it is rated a 3.0 ("slightly annoying" impairment) or better. It is important to note that DBS agrees that the picture is acceptable below the "operating threshold."<sup>5</sup> This supports Northpoint's assertions that the "operating threshold" does not define availability and that the DBS proposal would require Northpoint to protect a system that does not exhibit an outage.

DBS uses the five-point scale to determine the system availability; however, it provides no support for its correlation of a given level on the impairment scale to any particular outage or any particular Northpoint operating values. This scaled approach has significant flaws because it is commonly understood that a digital system is either "on" or "off." Northpoint asserts that the "freeze frame" condition, rather than the unsupported, self-serving "operating threshold" is the appropriate criterion for consumer experience.

Thus, Northpoint proposes to guarantee a minimum C/I ratio of 20 dB to all DBS customers, and if a DBS customer within the 20 dB contour perceives a harmful impairment from Northpoint – and makes a complaint of harmful interference – Northpoint will provide relief to that customer at its own expense.<sup>6</sup> In this fashion, the ultimate judge of "harmful interference," the DBS viewing public, will determine what is harmful. This is vastly preferable to using standards developed for one instance (NGSO/DBS sharing) for another instance that has completely different characteristics (Northpoint/DBS sharing). Because potential interference from NGSO varies in time and potential interference from Northpoint varies in space, it is necessary to have different standards for each case.

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<sup>3</sup> *Ex Parte* Submission of Northpoint Technology, October 20, 2000. *See also*, *Ex Parte* Submission of Northpoint Technology, September 13, 2000. DBS attempts to translate this 10% standard into a 27.2 dB C/I. Northpoint also addressed this issue in the September 13 filing.

<sup>4</sup> Page 2 of attachment A to DBS letter.

<sup>5</sup> Figures 2, 3 and 4 of attachment A.

<sup>6</sup> Clearly, it must be established that Northpoint, rather than equipment malfunction, is indeed the source of the impairment. This can be done through a field measurement.

Finally, DBS recounts a recent event involving a high-powered microwave service which it claims caused harmful interference to DBS. DBS attempts to use this example as support for its erroneous assertion that Northpoint will have "little incentive" to cooperate with DBS in resolving complaints of harmful interference because Northpoint is a DBS competitor. Since the offending microwave transmitter was not using Northpoint technology and certainly was not a DBS competitor, it is difficult to see why DBS believes this case was worthy of citation in support of its conclusion. However, from the facts presented by DBS it should be clear that the opposite conclusion should be drawn. Northpoint will have every incentive to avoid causing harmful interference because the alternative is for the Commission to order the shutdown of the Northpoint transmitter.

In summary, for the Commission to accept the DBS proposal for a 10% limit (or any percentage-based limit) on the increase in unavailability would deprive Northpoint of the ability to use the tools available to terrestrial services to mitigate interference and maximize service to the public. Alternatively, Northpoint proposes a minimum 20 dB C/I protection ratio guarantee.

An original and six copies of this letter are submitted for inclusion in the public record for the above-captioned proceedings. Please direct any questions concerning this submission to the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Robert Combs" followed by a stylized monogram or initials "RDC".

Robert Combs  
Director, System Development  
Northpoint Technology, Ltd.

cc: Dale Hatfield  
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